Complete Summary

GUIDELINE TITLE

Delirium: prevention, early recognition, and treatment. In: Evidence-based geriatric nursing protocols for best practice.

BIBLIOGRAPHIC SOURCE(S)

Tullmann DF, Mion LC, Fletcher K, Foreman MD. Delirium: prevention, early recognition, and treatment. In: Capezuti E, Zwicker D, Mezey M, Fulmer T, editor(s). Evidence-based geriatric nursing protocols for best practice. 3rd ed. New York (NY): Springer Publishing Company; 2008 Jan. p. 111-25. [53 references]

GUIDELINE STATUS

This is the current release of the guideline.

This guideline updates a previous version: Foreman MD, Mion LC, Trygstad L, Fletcher K. Delirium: strategies for assessing and treating. In: Mezey M, Fulmer T, Abraham I, Zwicker DA, editor(s). Geriatric nursing protocols for best practice. 2nd ed. New York (NY): Springer Publishing Company, Inc.; 2003. p. 116-40.

COMPLETE SUMMARY CONTENT

SCOPE

DISEASE/CONDITION(S)

Delirium

GUIDELINE CATEGORY

Evaluation
Management

Prevention
Risk Assessment
Treatment

CLINICAL SPECIALTY

Geriatrics
Nursing

INTENDED USERS

Advanced Practice Nurses
Allied Health Personnel
Health Care Providers
Nurses
Physician Assistants
Physicians

GUIDELINE OBJECTIVE(S)

To provide a standard of nursing practice to reduce the incidence of delirium in hospitalized older adults

TARGET POPULATION

Hospitalized older adults

INTERVENTIONS AND PRACTICES CONSIDERED

Assessment

1. Risk factors for delirium
2. Features of delirium

Management/Treatment

1. Collaborate with physician/nurse practitioner to treat underlying pathology and contributing factors
2. Eliminate or minimize risk factors
3. Provide therapeutic environment

MAJOR OUTCOMES CONSIDERED

- Long-term cognitive impairment
- Postoperative complications
- Functional status
- Hospital length of stay
- Discharge destination
- Need for institutionalization
- Health care cost
- Satisfaction with care

- Mortality

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Hand-searches of Published Literature (Primary Sources)
Hand-searches of Published Literature (Secondary Sources)
Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

Although the AGREE instrument (which is described in Chapter 1 of the original guideline document) was created to critically appraise clinical practice guidelines, the process and criteria can also be applied to the development and evaluation of clinical practice protocols. Thus the AGREE instrument has been expanded for that purpose to standardize the creation and revision of the geriatric nursing practice guidelines.

The Search for Evidence Process

Locating the best evidence in the published research is dependent on framing a focused, searchable clinical question. The PICO format—an acronym for population, intervention (or occurrence or risk factor), comparison (or control), and outcome—can frame an effective literature search. The editors enlisted the assistance of the New York University Health Sciences librarian to ensure a standardized and efficient approach to collecting evidence on clinical topics. A literature search was conducted to find the best available evidence for each clinical question addressed. The results were rated for level of evidence and sent to the respective chapter author(s) to provide possible substantiation for the nursing practice protocol being developed.

In addition to rating each literature citation to its level of evidence, each citation was given a general classification, coded as "Risks," "Assessment," "Prevention," "Management," "Evaluation/Follow-up," or "Comprehensive." The citations were organized in a searchable database for later retrieval and output to chapter authors. All authors had to review the evidence and decide on its quality and relevance for inclusion in their chapter or protocol. They had the option, of course, to reject or not use the evidence provided as a result of the search or to dispute the applied level of evidence.

Developing a Search Strategy

Development of a search strategy to capture best evidence begins with database selection and translation of search terms into the controlled vocabulary of the database, if possible. In descending order of importance, the three major databases for finding the best primary evidence for most clinical nursing questions are the Cochrane Database of Systematic Reviews, Cumulative Index to Nursing and Allied Health Literature (CINAHL), and Medline or PubMed. In addition, the PsycINFO database was used to ensure capture of relevant evidence in the psychology and behavioral sciences literature for many of the topics. Synthesis

sources such as UpToDate® and British Medical Journal (BMJ) Clinical Evidence and abstract journals such as *Evidence Based Nursing* supplemented the initial searches. Searching of other specialty databases may have to be warranted depending on the clinical question.

It bears noting that the database architecture can be exploited to limit the search to articles tagged with the publication type "meta-analysis" in Medline or "systematic review" in CINAHL. Filtering by standard age groups such as "65 and over" is another standard categorical limit for narrowing for relevance. A literature search retrieves the initial citations that begin to provide evidence. Appraisal of the initial literature retrieved may lead the searcher to other cited articles, triggering new ideas for expanding or narrowing the literature search with related descriptors or terms in the article abstract.

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Weighting According to a Rating Scheme (Scheme Given)

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Levels of Evidence

Level I: Systematic reviews (integrative/meta-analyses/clinical practice guidelines based on systematic reviews)

Level II: Single experimental study (randomized controlled trials [RCTs])

Level III: Quasi-experimental studies

Level IV: Non-experimental studies

Level V: Care report/program evaluation/narrative literature reviews

Level VI: Opinions of respected authorities/Consensus panels

METHODS USED TO ANALYZE THE EVIDENCE

Systematic Review

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

Not stated

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

External Peer Review
Internal Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Not stated

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

Note from the National Guideline Clearinghouse (NGC): In this update of the guideline, the process previously used to develop the geriatric nursing protocols has been enhanced.

Levels of evidence (I –VI) are defined at the end of the "Major Recommendations" field.

Parameters of Assessment

- Assess for risk factors
    - Baseline or pre-morbid cognitive impairment
    - Medications review
    - Pain
    - Metabolic disturbances (i.e., hypoglycemia, hypercalcemia, hyponatremia, hypokalemia)
    - Dehydration (physical signs/symptoms, intake/output, Na^+, blood urea nitrogen/creatinine [BUN/Cr])
    - Infection (fever, white blood cells [WBCs] with differential, cultures)
    - Environment (sensory overload or deprivation)

    - Impaired mobility
- Features of delirium should be assessed every shift (see www.ConsultGeriRN.org for resources for validated instruments)
    - Acute onset; evidence of underlying medical condition
    - Alertness: Fluctuates from stuporous to hypervigilant
    - Attention: Inattentive, easily distractible, and may have difficulty shifting attention from one focus to another; has difficulty keeping track of what is being said
    - Orientation: Disoriented to time and place; should not be disoriented to person
    - Memory: Inability to recall events of hospitalization and current illness; unable to remember instructions; forgetful of names, events, activities, current news, and so on
    - Thinking: Disorganized thinking; rambling, irrelevant, incoherent conversation; unclear or illogical flow of ideas; or unpredictable switching from topic to topic; difficulty in expressing needs and concerns; speech may be garbled
    - Perception: Perceptual disturbances such as illusions and visual or auditory hallucinations; and misperceptions such as calling a stranger by a relative's name
    - Psychomotor activity: May fluctuate between hypoactive, hyperactive, and mixed subtypes

Nursing Care Strategies

Based on protocols in multi-component delirium prevention studies (Inouye, et al., 1999; Marcantonio et al., 2001 **[Level II]**)

Collaborate with physician/nurse practitioner to treat the underlying pathology and contributing factors. If available, consult with geriatrician and/or Geriatric Nurse Practitioner or Clinical Nurse Specialist.

- Eliminate or minimize risk factors
    - Administer medications judiciously; avoid high-risk medications.
    - Prevent/promptly and appropriately treat infections.
    - Prevent/promptly treat dehydration and electrolyte disturbances.
    - Provide adequate pain control.
    - Maximize oxygen delivery (supplemental oxygen, blood, and blood pressure [BP] support as needed).
    - Use sensory aids as appropriate.
    - Regulate bowel/bladder function.
    - Provide adequate nutrition.
- Provide a therapeutic environment
    - Foster orientation: frequently reassure and reorient patient (unless patient becomes agitated); utilize easily visible calendars, clocks, caregiver identification; carefully explain all activities; communicate clearly
    - Provide appropriate sensory stimulation: quiet room; adequate light; one task at a time; noise-reduction strategies
    - Facilitate sleep: back massage, warm milk or herbal tea at bedtime; relaxation music/tapes; noise-reduction measures; avoid awakening patient

- Foster familiarity: encourage family/friends to stay at bedside; bring familiar objects from home; maintain consistency of caregivers; minimize relocations
- Maximize mobility: avoid restraints and urinary catheters; ambulate or active range of motion three times daily
- Communicate clearly, provide explanations
- Reassure and educate family
- Minimize invasive interventions
- Consider psychotropic medication as a last resort

Follow-up to Monitor Condition

- Decreased delirium to become a measure of quality care
- Incidence of delirium to decrease
- Patient's days with delirium to decrease
- Staff competence in recognition and treatment of acute confusion/delirium
- Documentation of a variety of interventions for acute confusion/delirium

Definitions:

Level I: Systematic reviews (integrative/meta-analyses/clinical practice guidelines based on systematic reviews)

Level II: Single experimental study (randomized controlled trials [RCTs])

Level III: Quasi-experimental studies

Level IV: Non-experimental studies

Level V: Care report/program evaluation/narrative literature reviews

Level VI: Opinions of respected authorities/Consensus panels

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

REFERENCES SUPPORTING THE RECOMMENDATIONS

References open in a new window

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of supporting evidence is identified and graded for selected recommendations.

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

Patient

- Absence of delirium
- Cognitive status returned to baseline
- Functional status returned to baseline
- Discharge to prehospitalization destination

Health Care Provider

- Increased detection of delirium
- Implementation of appropriate interventions to prevent/treat delirium
- Use of standardized delirium-prevention protocol
- Decreased use of physical restraints
- Decreased use of antipsychotic medications
- Increased satisfaction in care of hospitalized elderly

Institution

- Decreased overall cost
- Decreased length of stays
- Decreased morbidity and mortality
- Increased referrals and consultation to the specified specialists
- Improved satisfaction of patients, families, nursing staff

POTENTIAL HARMS

Not stated

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

IMPLEMENTATION TOOLS

Chart Documentation/Checklists/Forms

For information about availability, see the "Availability of Companion Documents" and "Patient Resources" fields below.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Getting Better
Staying Healthy

IOM DOMAIN

Effectiveness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

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ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

2003 (revised 2008 Jan)

GUIDELINE DEVELOPER(S)

Hartford Institute for Geriatric Nursing - Academic Institution

GUIDELINE DEVELOPER COMMENT

The guidelines were developed by a group of nursing experts from across the country as part of the Nurses Improving Care for Health System Elders (NICHE) project, under sponsorship of The John A. Hartford Foundation Institute for Geriatric Nursing.

SOURCE(S) OF FUNDING

Supported by a grant from The John A. Hartford Foundation.

GUIDELINE COMMITTEE

Not stated

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

Primary Authors: Dorothy F. Tullmann, Lorraine C. Mion, Kathleen Fletcher, Marquis D. Foreman

FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

GUIDELINE STATUS

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GUIDELINE AVAILABILITY

Electronic copies: Available from the Hartford Institute for Geriatric Nursing Web site.

Copies of the book *Geriatric Nursing Protocols for Best Practice*, 3rd edition: Available from Springer Publishing Company, 536 Broadway, New York, NY 10012; Phone: (212) 431-4370; Fax: (212) 941-7842; Web: www.springerpub.com.

AVAILABILITY OF COMPANION DOCUMENTS

The followings are available:

- The confusion assessment method (CAM). Try this: best practices in nursing care to older adults. 2007. Electronic copies available from the Hartford Institute for Geriatric Nursing Web site.

PATIENT RESOURCES

None available

NGC STATUS

This summary was completed by ECRI on February 2, 2004. The information was verified by the guideline developer on March 15, 2004. This summary was updated by ECRI Institute on June 19, 2008. The updated information was verified by the guideline developer on August 4, 2008.

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